

ABSTRACT OF THE DISCLOSURE

Dual cordless battery activating chargers activating their batteries via a vehicle, other vehicle, and performing the activation of other devices comprises: two 2.5A chargers each having 96 percent efficiency, an external power switch, a surface for placement of a user's finger for actuating the switch and the chargers simultaneously. This switch is in a column of the vehicle, also. The chargers further comprises an IC1 for controlling this switch, a charge pump generating a positive gate-drive voltage of the switch, a charging current having a voltage across a 25-Mohma resistor R3, and amplified by an op amp via positive-voltage feedback to IC1, a chip for maintaining the charging current at 2.5A, a circuit supplying the current to a separate load up to a limit being set via a current-sense transformer T1, and a sense resistor R1. T1 improves efficiency by lowering power dissipation in the resistor R1. This transformer turns ratio (1:70) routes, only 1/70 of the total battery-plus-load current through R1, generating a feedback voltage which enables IC1 to limit the overall current to a level compatible with the external components. While charging this system can activate computers, televisions, air conditioners, electrical ranges, refrigerators and much more. The system does not have to be charged, unless the inductor current exceeds the 100m V current limit threshold. This causes a high-side latch to reset and turns off a high-side switch.